

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Soppet et al.

Docket No.: PF316C2

Application No.: Not Yet Assigned

Group Art Unit: N/A

Filed: Concurrently Herewith

Examiner: Not Yet Assigned

For: Hematopoietic Signaling Factor

INFORMATION DISCLOSURE STATEMENT

MS Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure imposed by 37 C.F.R. § 1.56 to inform the Patent and Trademark Office of all references coming to the attention of each individual associated with the filing or prosecution of the subject application, which are or may be material to the patentability of a claim of the subject application, Attorneys for Applicants hereby direct the Examiner's attention to references AA-BF listed on the attached Form PTO/SB/08.

Copies of references AA-BF were submitted by Applicants or cited by the Examiner in connection with U. S. Patent Application Serial No. 09/996,606, filed November 30, 2001, to which the instant application claims priority under 35 U.S.C. § 120, and related copending U. S. Patent Application Serial No. 09/008,490, filed January 16, 1998. In particular, copies of reference AA was cited and provided by the Examiner in Application Serial No. 09/996,606, copies of references AM, AQ and AS were provided by Applicants in Application Serial No. 09/996,606, and copies of references AB-AL, AN-AP, AR, and AT-BF were provided by Applicants in Application Serial No. 09/008,490. Pursuant to 37 C.F.R. § 1.98(d), the Examiner is directed to the above-listed files for copies of references AA-BF.

The above information is presented so that the Patent and Trademark Office can determine any materiality thereof to the claimed invention. See 37 CFR §§ 1.104(a) concerning the PTO duty to consider and use any such information. It is respectfully requested that the information be considered during the prosecution of this application.

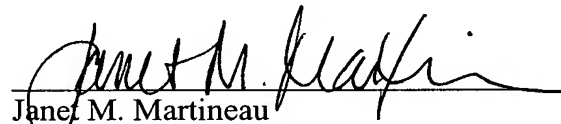
Identification of the listed references is not to be construed as an admission of any individual associated with the filing or prosecution of the subject application that such references are available as "prior art" against the subject application. Furthermore, Applicants do not waive any rights to appropriate action to establish patentability over any of the listed documents should they be applied as references against the claims of the subject application.

Applicants respectfully request that the Examiner review the listed references and that the references be made of record in the file history of the application.

Pursuant to 37 C.F.R. § 1.97(b), since this information disclosure statement is being filed concurrently with a request for a continuation application, no fee is due in connection herewith. However, should the Patent Office determine otherwise, please charge the required fee to Human Genome Sciences, Inc., deposit account no. 08-3425.

Date: August 18, 2003

Respectfully submitted,


Janet M. Martineau
Registration No.: 46,903
HUMAN GENOME SCIENCES, INC.
9410 Key West Avenue
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(301) 315-2723

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				Application Number	Unassigned
				Filing Date	Herewith
				First Named Inventor	Daniel R. Soppet
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	1	of	3	Attorney Docket Number	PF316C2

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Publication Date MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	6,054,298	Laufer et al.	04/25/2000	

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document Office ³ Number ⁴ Kind Code ⁵ (if known)			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AB	WO	89/00582	A2	Schering Biotech Corp	01/26/1989	
	AC	WO	92/13092	A1	Oncogene Science, Inc	08/06/1992	
	AD	WO	96/24668	A1	Human Genome Sciences, Inc	08/15/1996	
	AE	WO	97/26276	A1	Harvard College	07/24/1997	
	AF	WO	98/17793	A1	HSC Research and Development Limited Partnership	04/30/1998	

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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIP Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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OTHER REFERENCES - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²		
	AG	BERNSTEIN, I.D. <i>et al.</i> , "Recombinant human stem cell factor enhances the formation of colonies by CD34 ⁺ and CD34 ⁺ lin ⁻ cell, and the generation of colony-forming cell progeny from CD34 ⁺ lin ⁻ cells cultured with interleukin-3, granulocyte colony stimulating factor, or granulocyte-macrophage colony-stimulating factor," <i>Blood</i> 77:2361-2321 (1991).			
	AH	BRANDT, J. <i>et al.</i> , "Cytokine-dependent long-term culture of highly enriched precursors of hematopoietic progenitor cells from human bone marrow," <i>J. Clin. Invest.</i> 86:932-941 (1990).			
	AI	COHEN <i>et al.</i> , "Fringe boundaries coincide with Notch-dependent patterning centres in mammals and alter Notch-dependent development in <i>Drosophila</i> ," <i>Nat. Genet.</i> 16:283-288 (1997).			
	AJ	IRVINE, K.D. and E. WIESCHAUS, "fringe, a boundary-specific signaling molecule, mediates interactions between dorsal and ventral cells during <i>Drosophila</i> wing development," <i>Cell</i> 79:595-606 (1994).			
	AK	JOHNSTON, S.H. <i>et al.</i> , "A family of mammalian Fringe genes implicated in boundary determination and the Notch pathway," <i>Develop.</i> 124:2245-2254 (June 1997).			
	AL	KOBAYASKI, M. <i>et al.</i> , "Synergistic effects of interleukin-1 beta and interleukin-3 on the expansion of human hematopoietic progenitor cells in liquid cultures," <i>Blood</i> 78:1947-1953 (1991).			
	AM	KOCH <i>et al.</i> , "Subversion of the T/B lineage decision in the Thymus by lunatic fringe-mediated inhibition of Notch-1," <i>Immunity</i> 15:225-236 (2001).			
	AN	MASSAGUÉ, J. "TGF-beta signal transduction," <i>Ann. Rev. Biochem.</i> 67:753-791 (1998).			
	AO	MOORE, M.A.S. AND D.J. WARREN, "Synergy of interleukin 1 and granulocyte colony-stimulating factor: <i>In vivo</i> stimulation of stem-cell recovery and hematopoietic regeneration following 5-fluorouracil treatment of mice," <i>Proc. Natl. Acad. Sci. USA</i> 84:7134-7138 (1987).			
	AP	MUENCH, M.O. <i>et al.</i> , "Bone marrow transplantation with interleukin-1 plus kit-ligand ex vivo expanded bone marrow accelerates hematopoietic reconstitution in mice without the loss of stem cell lineage and proliferative potential," <i>Blood</i> 81:3463-3473 (1993).			
	AQ	MUNRO <i>et al.</i> , "The Notch signaling regulator Fringe acts in the Golgi apparatus and requires the glycosyltransferase signature motif DxD," <i>Curr. Biol.</i> 10(14):813-820 (2000).			
	AR	PAWLOWSKI, K. <i>et al.</i> , "Sensitive sequence comparison as protein function predictor," <i>Pacific Symposium on BioComputing</i> 42-53 (2000).			
	AS	SINGH, N. <i>et al.</i> , "Expression of notch receptors, notch ligands, and fringe genes in hematopoiesis," <i>Exper. Hematology</i> 28:527-534 (2000).			
	AT	THOMAS, K.A., "Vascular Endothelial Growth Factor, a potent and selective angiogenic agent," <i>J. Biol. Chem.</i> 271:603-606 (1996).			
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Sheet	3	of	3		

OTHER REFERENCES - NON PATENT LITERATURE DOCUMENTS				
Examiner Initials ²	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
	AU	WILSON, C.A. <i>et al.</i> , "Assessing annotation transfer of genomics: quantifying the relations between protein sequence, structure and function through traditional and probabilistic scores," <i>J. Mol. Biol.</i> 297:233-249 (2000).		
	AV	WU, J.Y. <i>et al.</i> , "The secreted product of <i>Xenopus</i> gene lunatic fringe, a vertebrate signaling molecule," <i>Science</i> 273:355-358 (July 1996).		
	AW	Genbank Accession No. R56561, "yg91c10.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:40887 5', mRNA sequence," (May 1995).		
	AX	Genbank Accession No. AAB19225, "lunatic fringe [<i>Xenopus laevis</i>]," (November 1996).		
	AY	Genbank Accession No. AAB38363, "Xfringe2 [<i>Xenopus laevis</i>]," (December 1996).		
	AZ	Genbank Accession No. AA183096, "mt84b02.r1 Soares mouse lymph node NbMLN Mus musculus cDNA clone IMAGE:636555 5' similar to TR:G576583 G576583 FRINGE PROTEIN PRECURSOR PRECURSOR, mRNA sequence," (January 1997).		
	BA	Genbank Accession No. AA138083, "mr02e03.r1 Soares mouse 3NbMS Mus musculus cDNA clone IMAGE:596284 5' similar to TR:G576583 G576583 FRINGE PROTEIN PRECURSOR PRECURSOR, mRNA sequence," (February 1997).		
	BB	Genbank Accession No. AAC60099, "lunatic fringe [<i>Gallus gallus</i>]," (April 1997).		
	BC	Genbank Accession No. AAC51360, "lunatic fringe [<i>Homo sapiens</i>]," (June 1997).		
	BD	Genbank Accession No. AAB60860, "c-fringe 1 [<i>Gallus gallus</i>]," (June 1997).		
	BE	Genbank Accession No. AAB71668, "lunatic fringe [<i>Mus musculus</i>]," (October 1997).		
	BF	Genbank Accession No. AA718675, "vt87b02.r1 Soares mammary_gland_NbMMG Mus musculus cDNA clone IMAGE:1178091 5' similar to TR:O09010 LUNATIC FRINGE PRECURSOR, mRNA sequence," (December 1997).		

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